

Amendment to the Claims

1 (Currently Amended). In a wireless local area network ("WLAN") which includes a Layer-2 entity, a method for assigning an internet protocol ("IP") address to a mobile terminal upon entering a basic service area ("BSA") served by said Layer-2 entity, comprising:

said Layer-2 entity determining, on behalf of said mobile terminal, whether said mobile terminal should continue using a current IP address or begin using a new IP address; and

if said Layer-2 entity determines that said mobile terminal should continue using said current IP address, said Layer-2 entity issuing an instruction, to said mobile terminal, to continue using said current IP address; and

said mobile terminal issuing a Layer-2 service request to said Layer-2 entity upon entering said BSA;

said Layer-2 entity determining whether said mobile terminal should continue using said current IP address or begin using a new IP address from said Layer-2 entity, wherein said Layer-2 service request is formatted to include a current IP address field.

2 (Canceled).

3 (Canceled).

4 (Currently Amended). The method of claim 1 [[3]], wherein said Layer-2 service request is formatted to include a mobile IP bit.

5 (Currently Amended). The method of claim 1 [[2]], and further comprising:

said Layer-2 entity issuing, to said mobile terminal, a response to said Layer-2 service request; and wherein:

if said Layer-2 entity determined that said mobile terminal must continue using said current IP address, said response to said Layer-2 service request shall contain an indication that said mobile terminal must continue using said current IP address; and

if said Layer-2 entity determined that said mobile terminal must begin using said new IP address, said response to said Layer-2 service request shall contain said new IP address.

6 (Original). The method of claim 5, wherein said response to said Layer-2 service request is formatted to include a current IP address field.

7 (Original). The method of claim 6, and further comprising:

if said Layer-2 entity determines that said mobile terminal must continue using said current IP address, said Layer-2 entity placing a NULL in said current IP address field of said response to said Layer-2 service request.

8 (Original). The method of claim 6, wherein said WLAN further includes a Layer-3 entity and further comprising:

if said Layer-2 entity determined that said mobile terminal must begin using said new IP address, said Layer-2 entity issuing a request, to said Layer-3 entity, for said new IP address; and

upon receiving said new IP address, said Layer-2 entity placing said new IP address in said current IP address field of said response to said Layer-2 service request.

9 (Original). The method of claim 8, wherein said Layer-2 entity receives said new IP address from said Layer-3 entity.

10 (Original). The method of claim 8, wherein said Layer-2 service request is an association request message and said response to said Layer-2 service request is an association response message.

11 (Original). The method of claim 8, wherein said Layer-2 service request is a reassociation request message and said response to said Layer-2 service request is a reassociation response message.

12 - 31 (Canceled).

32 (New). A wireless local area network ("WLAN") system providing wireless communication for a mobile terminal, comprising:

an access entity;

a basic service area ("BSA") served by said access entity, said mobile terminal issuing a service request receivable at said access entity upon entering said BSA for determining an internet protocol ("IP") address assignment, wherein said access service request is formatted to include a currently assigned IP address field;

said access entity determining whether said mobile terminal should continue using a currently assigned IP address or begin using a new IP address issued through said access entity.

33 (New). The system of claim 32, wherein if said access entity determines that said mobile terminal should continue using said currently assigned IP address, said access entity issuing an instruction, to said mobile terminal, to continue using said current IP address.

34 (New). The system of claim 32, wherein said access entity is a Layer-2 entity.

35 (New). The system of claim 32, wherein said access entity further for issuing, to said mobile terminal, a response to said service request; and wherein:

if said access entity determined that said mobile terminal must continue using said current IP address, said response to said service request shall contain an indication that said mobile terminal must continue using said currently assigned IP address; and

if said access entity determined that said mobile terminal must begin using said new IP address, said response to said service request shall contain said new IP address.